

What is claimed is:

## AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims below.

### Listing of Claims:

1. (Currently Amended) ~~Method~~ A method for authenticating a subscriber (~~MT,6~~) for utilizing services in a wireless LAN (~~WLAN,10~~) while using an IP multimedia subsystem (~~IMS,3~~) of a mobile radio network, ~~characterized in that~~ comprising:  
\_\_\_\_\_ a subscriber (MT,6) who is to be authenticated and who is located at a location having wireless LAN coverage, receives receiving an IP address from the wireless LAN (WLAN,10) in an attributed manner, after which the subscriber receiving the IP address is authenticatesd himself to the IP multimedia subsystem (IMS,3) while giving this the IP address, by means of SIP registration;; and  
\_\_\_\_\_ informing whereby an element (WAGW,2) of the wireless LAN (WLAN,10) is informed of the result of the authentication of the subscriber (MT,6) with regard to the IP multimedia system (IMS,3).
2. (Currently Amended) ~~Method~~ The method according to Claim 1, ~~characterized in that~~ wherein  
at the subscriber (MT,6) of at the wireless LAN (WLAN,10) in an the IP multimedia subsystem (IMS,3) is authenticated while using a home subscriber system (HSS,5).
3. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
at the subscriber (MT,6) in at the wireless LAN (WLAN,10) in an the IP multimedia subsystem (IMS,3) is authenticated while using an authentication server (AAA server).

4. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 2, wherein  
the subscriber (~~MT,6~~) transmits, via the wireless LAN (~~WLAN,10~~), an SIP register message to a device (~~CSCF,4~~) of the IP multimedia system (~~IMS,3~~), which transmits a request for authentication of ~~this~~ the IP multimedia subsystem (~~IMS,3~~) subscriber, ~~using the mechanisms provided for an IP multimedia subsystem authentication,~~ to the home subscriber system (~~HSS,5~~), after which the home subscriber system (~~HSS,5~~) authenticates the subscriber (~~MT,6~~) ~~using these mechanisms~~ and communicates the result of the authentication to the \_wireless LAN access gateway (~~WAGW,2~~).

5. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
an association is implemented between the subscriber terminal (~~MT,6~~) and the wireless LAN (~~WLAN,10~~) ~~for the purpose of transmitting and receiving via the radio interface between subscriber~~ (~~MT,6~~) and wireless LAN (~~WLAN,10~~).

6. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
the subscriber terminal (~~MT,6~~) ~~receives an~~ the IP address from ~~the~~ an address area of the wireless LAN (~~WLAN,10~~), with which ~~together with all other IP transport-based data~~ ~~it can~~ transmits and receives SIP messages that transport authentication messages from and to the IP multimedia subsystem (~~IMS,3~~).

7. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein

~~the~~ access to services is controlled via ~~a~~ the wireless LAN access gateway (~~WAGW,2~~), which monitors successful authentication in the IP multimedia subsystem (~~IMS,3~~).

8. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
the wireless LAN (~~WLAN,10~~) is connected to the IP multimedia subsystem (~~IMS,3~~) via a Gi interface.

9. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
the wireless LAN (~~WLAN,10~~) is connected to the IP multimedia subsystem (~~IMS,3~~) via an Mm interface.

10. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,  
~~characterized in that~~ claim 1, wherein  
~~the~~ result of the authentication (~~P-CSCF,1~~) is fed to ~~the~~ wireless LAN access gateway (~~WAGW,2~~) by a (proxy-call state control function)/policy control function (~~P-CSCF,1~~) at a location having wireless LAN coverage.

11. (Currently Amended) ~~Method~~ The method according to Claim 7,  
~~characterized in that~~ wherein  
the wireless LAN (~~WLAN,10~~) has a proxy-call state control function node (~~P-CSCF,1~~) which forwards the SIP messages to ~~the~~ corresponding entity in the IP multimedia subsystem (~~IMS,3~~) and controls the WLAN access gateway (~~WAGW,2~~) with regard to the authentication result of the IP multimedia subsystem (~~IMS,3~~).

12. (Currently Amended) ~~Method~~ The method according to Claim 7,  
~~characterized in that wherein~~  
instructions are provided to the WLAN access gateway (~~WAGW,2~~) based on the basis  
~~of the~~ a result of the authentication in the IP multimedia subsystem (~~IMS,3~~), as to how  
~~the~~ data traffic of a subscriber (~~MT,6~~) is to be handled by the wireless LAN access  
gateway (~~WAGW,2~~), ~~in particular instructions regarding the blocking of data traffic.~~

13. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~  
~~claims,~~  
~~characterized in that~~ claim 12, wherein  
the proxy-call state control function (~~P-CSCF,1~~), ~~by means of a policy control function,~~  
controls the data traffic through the wireless LAN access gateway (~~WAGW,2~~) and  
grants, restricts, increases or declines ~~the~~ a quantity and/or quality of the data flow of a  
subscriber (~~MT,6~~) through the wireless LAN access gateway (~~WAGW,2~~).

14. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~  
~~claims,~~  
~~characterized in that~~ claim 13, wherein  
the policy control function is part of the proxy-call state control function node (~~P-~~  
~~CSCF,1~~) or is a separate unit.

15. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~  
~~claims,~~  
~~characterized in that~~ claim 12, wherein  
the result of the authentication is fed to the wireless LAN access gateway (~~WAGW,2~~)  
by the call state control function (~~CSCF,4~~)/policy control function in the IP multimedia  
subsystem (~~IMS,3~~).

16. (Currently Amended) ~~Method~~ The method according to Claim 12,

~~characterized in that wherein~~

the call state control function node (CSCF,4) of the IP multimedia subsystem (IMS,3) controls the wireless LAN access gateway (WAGW,2) with regard to the authentication result of the IP multimedia subsystem (IMS,3).

17. (Currently Amended) ~~Method~~ The method according to Claim 13,

~~characterized in that wherein~~

a Go interface is installed between the call state control function node (CSCF,4) of the IP multimedia subsystem (IMS,3) and the wireless LAN access gateway (WAGW,2), for protected data transfer.

18. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~ claims,

~~characterized in that claim 1, wherein~~

~~the~~ an authentication result is evaluated by expanded functionalities in the wireless LAN access gateway (WAGW,2).

19. (Currently Amended) ~~Method~~ The method according to Claim 16,

~~characterized in that wherein~~

the authentication result received from the IP multimedia subsystem (IMS,3) is converted by the wireless LAN access gateway (WAGW,2), ~~whereby in said the~~ wherein the WLAN access gateway (WAGW,2) allows subscriber data to pass there through ~~completely or with restrictions~~.

20. (Currently Amended) ~~Method~~ The method according to Claim 13,

~~characterized in that wherein~~

the evaluation of the authentication result is implemented using an "application layer gateway".

21. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~  
~~claims,~~

~~characterized in that~~ claim 1, wherein

the subscriber (~~MT,6~~) of the wireless LAN (~~WLAN,10~~) is also a subscriber of the  
mobile communication network.

22. (Currently Amended) ~~Method~~ The method according to ~~one of the above~~  
~~claims,~~

~~characterized in that~~ claim 1, wherein

the wireless LAN network (~~WLAN,10~~) is integrated into mobile communication  
networks with ~~the help~~ aid of ETSI HiperLan and IEEE 802.11.

23. (Currently Amended) ~~Device~~ A device for authenticating a subscriber (~~MT,6~~)  
for utilizing services in a wireless LAN (~~WLAN,10~~) with ~~the help~~ aid of an IP  
multimedia subsystem (~~IMS,3~~) of a mobile radio network, ~~said device~~  
~~having~~ comprising:

[[~~-~~]] an IP multimedia system (~~IMS,3~~) for authenticating a subscriber (~~MT,6~~) ~~who is~~ to  
be authenticated by means of SIP registration, and ~~who is~~ located at a location having  
wireless LAN coverage, by giving an IP address allocated by the wireless LAN  
(~~WLAN,10~~);<sub>i</sub> and

[[~~-~~]] an IP multimedia subsystem (~~IMS,3~~) for informing an element (~~WAGW,2~~) of the  
wireless LAN (~~WLAN,10~~) of ~~the~~ a result of the authentication of the subscriber (~~MT,6~~)  
with regard to the IP multimedia subsystem (~~IMS,3~~).

24. (Currently Amended) ~~Device~~ The device according to Claim 23,  
~~characterized in that~~ wherein

a second device constituting the proxy call state control function node (~~CSCF,1~~) is a  
node in the wireless LAN (~~WLAN,10~~).

25. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 23 to 24,~~  
~~characterized in that~~ claim 24, wherein  
the second device constituting the proxy call state control function node (~~CSCF,1~~) of  
the IP multimedia subsystem (~~IMS,3~~) is provided for controlling authentication in the  
wireless LAN (~~WLAN,10~~).

26. (Currently Amended) ~~Device~~ The device according to ~~one of Claims 23 to 25,~~  
~~characterized in that~~ claim 25, wherein  
the wireless LAN access gateway (~~WAGW,2~~) has a third device that is configured such  
that ~~said~~ the device converts the authentication result which is received from the IP  
multimedia subsystem (~~IMS,3~~), by allowing subscriber data to pass there through  
~~completely or with restrictions.~~